

## Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

### Listing of Claims

1. (Currently Amended) A coating paint comprising a ~~biomolecule composition, wherein the biomolecule composition comprises an active biomolecule~~ proteinaceous material which is configured to bind to a chemical that is toxic to humans.

2. – 6. (Canceled)

7. (Withdrawn - Currently Amended) The coating paint of claim ~~6~~ 1, wherein the ligand comprises an organophosphorus compound.

8. (Currently Amended) The coating paint of claim ~~2~~ 1, wherein the proteinaceous molecule comprises a peptide, a polypeptide, or a protein, ~~or a combination thereof.~~

9. (Withdrawn - Currently Amended) The coating paint of claim 8, wherein the proteinaceous molecule comprises an enzyme, an antibody, a receptor, a transport protein, or a structural protein, ~~or a combination thereof.~~

10. (Currently Amended) The coating paint of claim 8, wherein the proteinaceous molecule comprises an enzyme.

11. (Withdrawn - Currently Amended) The coating paint of claim 10, wherein the enzyme comprises an oxidoreductase, a transferase, a hydrolase, a lyase, an isomerase, a ligase, or a combination thereof.

12. (Withdrawn - Currently Amended) The coating paint of claim 11, wherein the enzyme comprises a hydrolase.

13. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 12, wherein the hydrolase comprises an esterase.
14. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 13, wherein the esterase comprises a phosphoric triester hydrolase.
15. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 14, wherein the phosphoric triester hydrolase comprises an aryldialkylphosphatase, a diisopropyl-fluorophosphatase, or a combination thereof.
16. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 14, wherein the phosphoric triester hydrolase comprises a combination of phosphoric triester hydrolases.
17. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~15~~14, wherein the phosphoric triester hydrolase comprises an aryldialkylphosphatase.
18. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~15~~17, wherein the aryldialkylphosphatase comprises an organophosphorus hydrolase, a human paraoxonase, an animal carboxylase, or a functional equivalent thereof.
19. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~15~~17, wherein the aryldialkylphosphatase comprises an organophosphorus hydrolase or a functional equivalent thereof.
20. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 19, wherein the organophosphorus hydrolase comprises an *Agrobacterium radiobacter* P230 organophosphate hydrolase, a *Flavobacterium balustinum* parathion hydrolase, a *Pseudomonas diminuta* phosphotriesterase, a *Flavobacterium sp opd* gene product, a *Flavobacterium sp.* parathion hydrolase *opd* gene product, ~~or a functional equivalent thereof.~~

21. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 2019, wherein the organophosphorus hydrolase comprises a functional equivalent of: a *Agrobacterium radiobacter* P230 organophosphate hydrolase, a *Flavobacterium balustinum* parathion hydrolase, a *Pseudomonas diminuta* phosphotriesterase, a *Flavobacterium sp opd* gene product, or a *Flavobacterium sp.* parathion hydrolase *opd* gene product.

22. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 21, wherein the functional equivalent is a structural analog.

23. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 22, wherein the structural analog comprises a  $\text{Co}^{2+}$ ,  $\text{Fe}^{2+}$ ,  $\text{Cu}^{2+}$ ,  $\text{Mn}^{2+}$ ,  $\text{Cd}^{2+}$ , or  $\text{Ni}^{2+}$  at the enzyme active site.

24. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 21, wherein the functional equivalent is a sequence analog.

25. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 21~~24~~, wherein the sequence analog is an alteration in sequence length.

26. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 24, wherein the sequence analog lacks a leader peptide sequence.

27. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 24, wherein the sequence analog is a fusion protein.

28. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 2019, wherein the organophosphorus hydrolase comprises a *Pseudomonas diminuta* phosphotriesterase; or a functional equivalent thereof.

29. – 30. (Canceled)

31. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 28, wherein the *Pseudomonas diminuta* phosphotriesterase functional equivalent comprises a sequence analog.

32. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 31, wherein the sequence analog comprises an amino acid substitution.

33. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 32, wherein the sequence analog is H55C, H57C, C59A, G60A, S61A, I106A, I106G, W131A, W131F, W131K, F132A, F132H, F132Y, L136Y, L140Y, H201C, H230C, H254A, H254R, H254S, H257A, H257L, H257Y, L271A, L271Y, L303A, F306A, F306E, F306H, F306K, F306Y, S308A, S308G, Y309A, M317A, M317H, M317K, M317R, H55C/H57C, H55C/H201C, H55C/H230C, H57C/H201C, H57C/H230C, A80V/S365P, I106A/F132A, I106A/S308A, I106G/F132G, I106G/S308G, F132Y/F306H, F132H/F306H, F132H/F306Y, F132Y/F306Y, F132A/S308A, F132G/S308G, L182S/V310A, H201C/H230C, H254R/H257L, H55C/H57C/H201C, H55C/H57C/H230C, H55C/H201C/H230C, I106A/F132A/H257Y, I106A/F132A/H257W, I106G/F132G/S308G, L130M/H257Y/I274N, H257Y/I274N/S365P, H55C/H57C/H201C/H230C, I106G/F132G/H257Y/S308G, or A14T/A80V/L185R/H257Y/I274N.

34. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 17, wherein the arylalkylphosphatase comprises a human paraoxonase or a functional equivalent thereof.

35. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 34, wherein the human paraoxonase comprises an HPON1 gene product or a functional equivalent thereof.

36. (Canceled)

37. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 28~~35~~, wherein the HPON1 gene product functional equivalent comprises a sequence analog.

38. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 37, wherein the sequence analog comprises an amino acid substitution.

39. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 38, wherein the sequence analog is E32A, E48A, E52A, D53A, D88A, D107A, H114N, D121A, H133N, H154N, H160N, W193A, W193F, W201A, W201F, H242N, H245N, H250N, W253A, W253F, D273A, W280A, W280F, H284N, or H347N.

40. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 17, wherein the arylidialkylphosphatase comprises an animal carboxylase.

41. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 40, wherein the animal carboxylase comprises an insect carboxylase or a functional equivalent thereof.

42. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 41, wherein the insect carboxylase comprises a *Plodia interpunctella* carboxylase, *Chrysomya putoria* carboxylase, *Lucilia cuprina* carboxylase, *Musca domestica* carboxylase, ~~carboxylase~~, or a functional equivalent thereof.

43. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~45~~14, wherein the phosphoric triester hydrolase comprises a diisopropyl-fluorophosphatase.

44. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 43, wherein the diisopropyl-fluorophosphatase comprises an organophosphorus acid anhydrolase, a squid-type DFPase, a Mazur-type DFPase, or a functional equivalent thereof.

45. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~[[44]]~~143, wherein the diisopropyl-fluorophosphatase comprises an organophosphorus acid anhydrolase or a functional equivalent thereof.

46. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 45, wherein the organophosphorus acid anhydrolase comprises an *Altermonas* organophosphorus acid anhydrolase, a prolidase, or a functional equivalent thereof.
47. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~[[46]]45~~, wherein the organophosphorus acid anhydrolase comprises an *Altermonas* organophosphorus acid anhydrolase or a functional equivalent thereof.
48. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 47, wherein the *Altermonas* organophosphorus acid anhydrolase comprises an *Alteromonas* sp JD6.5 organophosphorus acid anhydrolase, an *Altermonas haloplanktis* organophosphorus acid anhydrolase, an *Altermonas undina* organophosphorus acid anhydrolase, or a functional equivalent thereof.
49. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~[[46]]45~~, wherein the organophosphorus acid anhydrolase comprises a prolidase or a functional equivalent thereof.
50. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 49, wherein the prolidase comprises a human prolidase, a *Mus musculus* prolidase, a *Lactobacillus helveticus* prolidase, an *Escherichia coli* prolidase, an *Escherichia coli* aminopeptidase P, or a functional equivalent thereof.
51. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~[[44]]43~~, wherein the diisopropyl-fluorophosphatase comprises a squid-type DFPase<sub>7</sub> or a functional equivalent thereof.
52. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 51, wherein the squid-type DFPase comprises a *Loligo vulgaris* DFPase, a *Loligo pealei* DFPase, a *Loligo opalescens* DFPase, or a functional equivalent thereof.

53. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~52~~ 51, wherein the squid-type DFPase comprises a *Loligo vulgaris opalescens* DFPase; or a functional equivalent thereof.

54. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~53~~ 51, wherein the squid-type DFPase comprises a *Loligo vulgaris pealei* DFPase; or a functional equivalent thereof.

55. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~54~~ 51, wherein the squid-type DFPase comprises a *Loligo vulgaris* DFPase functional equivalent.

56. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 55, wherein the *Loligo vulgaris* DFPase functional equivalent comprises a sequence analog.

57. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 56, wherein the sequence analog comprises an amino acid substitution.

58. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 57, wherein the sequence analog is H181N, H224N, H274N, H219N, H248N, or H287N.

59. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 57, wherein the sequence analog is an alteration in sequence length.

60. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 59, wherein the sequence analog is a fusion protein.

61. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~[44]~~ 143, wherein the diisopropyl-fluorophosphatase comprises a Mazur-type DFPase or a functional equivalent thereof.

62. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 61, wherein the Mazur-type DFPase comprises a mouse liver DFPase, a hog kidney DFPase, a *Bacillus stearothermophilus* strain OT DFPase, an *Escherichia coli* DFPase, or a functional equivalent thereof.

63. (Currently Amended) The coating paint of claim 14, wherein the phosphoric triester hydrolase comprises a *Plesiomonas* sp. strain M6 *nzpd* gene product, a *Xanthomonas* sp. phosphoric triester hydrolase, a *Tetrahymena* phosphoric triester hydrolase, or a functional equivalent thereof.

64. (Canceled)

65. (Withdrawn - Currently Amended) The coating paint of claim 64, wherein the proteinaceous molecule is further configured to ~~comprises a ligand capable of binding~~ bind to an active biomolecule of the living organism.

66. (Withdrawn - Currently Amended) The coating paint of claim 65, wherein the ~~active biomolecule of the~~ living organism comprises a receptor, an enzyme, a transport protein, or a combination thereof.

67. (Currently Amended) The coating paint of claim 1, wherein the ~~biomolecular composition~~ proteinaceous material comprises approximately 0.001% to approximately 40% of the coating paint composition by weight or volume.

68. (Canceled)

69. (Withdrawn - Currently Amended) The coating paint of claim 1, wherein the ~~biomolecule composition~~ proteinaceous material comprises a microorganism based particulate material.

70. (Withdrawn - Currently Amended) The coating paint of claim 69, wherein the microorganism based particulate material is a whole cell material.

71. (Withdrawn - Currently Amended) The coating paint of claim 70, wherein the microorganism based particulate material is a cell fragment microorganism based particulate material.



72. (Currently Amended) The coating paint of claim 1, wherein the coating paint comprises a buffer.

73. (Currently Amended) The coating paint of claim ~~24~~ 72, wherein the buffer comprises a bicarbonate.

74. (Currently Amended) The coating paint of claim 1, wherein the coating paint is approximately 5  $\mu\text{m}$  to approximately 1500  $\mu\text{m}$  thick upon the a surface in a state of matter selected from a group consisting of a liquid and a solid.

75. (Currently Amended) The coating paint of claim 1, wherein the coating paint is approximately 15  $\mu\text{m}$  to approximately 500  $\mu\text{m}$  thick upon the a surface in a state of matter selected from a group consisting of a liquid and a solid.

76. (Canceled)

77. (Withdrawn - Currently Amended) The coating paint of claim 1, wherein the coating paint comprises a clear coating.

78. (Withdrawn - Currently Amended) The coating paint of claim 77, wherein the clear coating comprises a lacquer, a varnish, a shellac, a stain, a water repellent coating, or a combination thereof.

79. (Currently Amended) The coating paint of claim 1, wherein the coating paint comprises a multicoat system.

80. (Currently Amended) The coating paint of claim 79, wherein the multicoat system comprises 2 to 10 layers.

81. (Currently Amended) The coating paint of claim 80, wherein one layer of the multicoat system comprises the biomolecular composition proteinaceous material.

82. (Currently Amended) The ~~coating paint~~ of claim 80, wherein a plurality of layers of the multicoat system comprise the ~~biomolecular composition~~ proteinaceous material.

83. (Currently Amended) The ~~coating paint~~ of claim 80, wherein each layer of the multicoat system is ~~coating paint~~ is approximately 15  $\mu\text{m}$  to approximately 150  $\mu\text{m}$  thick in a state of matter selected from a group consisting of a liquid and a solid.

84. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 79, wherein the multicoat system comprises a sealer, a water repellent, a primer, an undercoat, or a topcoat.

85. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 79, wherein the multicoat system comprises a topcoat.

86. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 85, wherein the topcoat comprises the ~~biomolecular composition~~ proteinaceous material.

87. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 1, wherein the ~~coating paint~~ further comprises a binder, a liquid component, a colorant, an additive, or a combination thereof.

88. (Currently Amended) The ~~coating paint~~ of claim 1, wherein the ~~coating paint~~ undergoes film formation.

89. (Currently Amended) The ~~coating paint~~ of claim 88, wherein the film formation occurs at ambient conditions a temperature between approximately -10 °C and approximately 40 °C.

90. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 88, wherein film formation occurs at baking conditions.

91. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 90, wherein the baking conditions is-comprise a temperature between approximately 40 °C and approximately 50 °C.

92. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 90, wherein ~~the~~ baking conditions ~~comprise a temperature is-between approximately 40 °C and approximately 65°C.~~

93. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 90, wherein ~~the~~ baking conditions ~~comprise a temperature is-between approximately 40 °C and approximately 110 °C.~~

94. (Currently Amended) The ~~coating paint~~ of claim 88, wherein the ~~coating paint~~ comprises a volatile component and a non-volatile component.

95. (Currently Amended) The ~~coating paint~~ of claim 94, wherein the ~~coating paint~~ undergoes film formation by loss of part of the volatile component.

96. (Currently Amended) The ~~coating paint~~ of claim 94, wherein the volatile component comprises a volatile liquid component.

97. (Currently Amended) The ~~coating paint~~ of claim 96, wherein the volatile liquid component comprises a solvent, a thinner, a diluent, or a combination thereof.

98. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 94, wherein the non-volatile component comprises a binder, a colorant, a plasticizer, a coating additive, or a combination thereof.

99. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 88, wherein film formation occurs by crosslinking of a binder.

100. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 99, wherein film formation occurs by crosslinking of a plurality of binders.

101. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 88, wherein film formation occurs by irradiating the ~~coating paint~~.

102. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 1, wherein the ~~coating paint~~ produces a self-cleaning film.

103. (Currently Amended) The ~~coating paint~~ of claim 1, wherein the ~~coating paint~~ is a non-film forming coating.

104. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 103, wherein the non-film forming coating comprises a non-film formation binder.

105. (Currently Amended) The ~~coating paint~~ of claim 103, wherein the non-film forming coating comprises a coating component in a concentration that is insufficient to produce a solid film.

106. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 105, wherein the coating component comprises a binder that contributes to thermoplastic film formation.

107. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 105, wherein the coating component contributes to thermosetting film formation.

108. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 107, wherein the coating component comprises a binder, catalyst, initiator, or combination thereof.

109. (Canceled)

110. (Currently Amended) The ~~coating paint~~ of claim ~~110~~ 1, wherein the ~~coating paint~~ produces a temporary film lasting upon a surface for a time period between approximately 1 second and approximately 6 months.

111. (Currently Amended) The ~~coating paint~~ of claim 110, wherein the temporary film has a poor resistance to a coating remover is susceptible to wear by exposure to water, exposure to weathering conditions, or a combination thereof.

112. (Currently Amended) The coating paint of claim 110, wherein the temporary film has a poor is susceptible to wear by a scrubbing action, scrub resistance, a poor exposure to a solvent resistance, a poor water resistance, a poor weathering property, a poor adhesion property, or a combination thereof.

113. (Withdrawn - Currently Amended) The coating paint of claim 1, wherein the coating comprises an architectural coating, an industrial coating, a specification coating, or a combination thereof.

114. (Withdrawn - Currently Amended) The coating paint of claim 1, wherein the coating paint comprises an architectural coating.

115. (Withdrawn - Currently Amended) The coating paint of claim 114, wherein the architectural coating comprises a wood coating, a masonry coating, an artist's coating, or a combination thereof.

116. (Withdrawn - Currently Amended) The coating paint of claim 114, wherein the architectural coating has a pot life of at least 12 months at ambient conditions temperatures between approximately -10 °C and approximately 40 °C.

117. (Withdrawn - Currently Amended) The coating paint of claim 114, wherein the architectural paint undergoes film formation at ambient conditions temperatures between approximately -10 °C and approximately 40 °C.

118. (Withdrawn - Currently Amended) The coating paint of claim 1, wherein the coating comprises an industrial coating.

119. (Withdrawn - Currently Amended) The coating paint of claim 118, wherein the industrial paint comprises an automotive paint, a can paint, sealant paint, a marine paint, or a combination thereof.

120. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 119, wherein the industrial paint undergoes film formation at baking conditions.

121. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 1, wherein the paint comprises a specification paint.

122. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 121, wherein the specification coating comprises a pipeline coating, traffic marker coating, aircraft coating, a nuclear power plant coating, or a combination thereof.

123. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 1, wherein the ~~coating paint~~ comprises a water-borne ~~coating paint~~.

124. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 123, wherein the water-borne ~~coating paint~~ is a latex ~~coating paint~~.

125. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 123, wherein the water-borne ~~coating paint~~ has a density of approximately 1.20 kg/L to approximately 1.50 kg/L.

126. (Currently Amended) The ~~coating paint~~ of claim 1, wherein the ~~coating paint~~ comprises a solvent-borne ~~coating paint~~.

127. (Currently Amended) The ~~coating paint~~ of claim 126, wherein the solvent-borne ~~coating paint~~ has a density of approximately 0.90 kg/L to approximately 1.2 kg/L.

128. (Currently Amended) The ~~coating paint~~ of claim 1, wherein the ~~coating paint~~ has a viscosity during application of approximately 72 Ku to approximately 95 Ku.

129. (Currently Amended) The ~~coating paint~~ of claim 1, wherein the ~~coating paint~~ has a viscosity prior to application of approximately 100 P to approximately 1000 P.

130. (Currently Amended) The coating paint of claim 1, wherein the coating paint has a viscosity during application of approximately 0.5 P to approximately 2.5 P.

131. (Currently Amended) The coating paint of claim 1, wherein the coating paint has a viscosity of approximately 100 P to approximately 1000 P upon a surface immediately after application.

132. (Withdrawn - Currently Amended) The coating paint of claim 1, wherein the coating paint further comprises a binder.

133. (Withdrawn - Currently Amended) The coating paint of claim 132, wherein the binder comprises a thermoplastic binder, a thermosetting binder, or a combination thereof.

134. (Withdrawn - Currently Amended) The coating paint of claim ~~133~~ 132, wherein the coating binder comprises a thermoplastic binder.

135. (Withdrawn - Currently Amended) The coating paint of claim 134, wherein the coating paint produces a film by thermoplastic film formation.

136. (Withdrawn - Currently Amended) The coating paint of claim ~~133~~ 132, wherein the coating binder comprises a thermosetting binder.

137. (Withdrawn - Currently Amended) The coating paint of claim 136, wherein the coating paint produces a film by thermosetting film formation.

138. (Withdrawn - Currently Amended) The coating paint of claim 132, wherein the binder comprises an oil-based binder.

139. (Withdrawn - Currently Amended) The coating paint of claim 138, wherein the oil-based binder comprises an oil, an alkyd, an oleoresinous binder, a fatty acid epoxide ester, or a combination thereof.

140. (Withdrawn - Currently Amended) The coating paint of claim 139, wherein the coating paint produces a layer approximately 15  $\mu\text{m}$  to approximately 25  $\mu\text{m}$  thick upon ~~the a~~ vertical surface or approximately 15  $\mu\text{m}$  to approximately 40  $\mu\text{m}$  thick upon ~~the a~~ horizontal surface.

141. (Withdrawn - Currently Amended) The coating paint of claim 132, wherein the binder comprises an oil.

142. (Withdrawn - Currently Amended) The coating paint of claim 132, wherein the binder comprises an alkyd.

143. (Withdrawn - Currently Amended) The coating paint of claim 132, wherein the binder comprises an oleoresinous binder.

144. (Withdrawn - Currently Amended) The coating paint of claim 132, wherein the binder comprises a fatty acid epoxide ester.

145. (Withdrawn - Currently Amended) The coating paint of claim 132, wherein the binder comprises a polyester resin.

146. (Withdrawn - Currently Amended) The coating paint of claim 145, wherein the polyester resin comprises a hydroxy-terminated polyester.

147. (Withdrawn - Currently Amended) The coating paint of claim 145, wherein the polyester resin comprises a carboxylic acid-terminated polyester.

148. (Withdrawn - Currently Amended) The coating paint of claim 145, wherein the coating paint further comprises a urethane, an amino resin, or a combination thereof.

149. (Withdrawn - Currently Amended) The coating paint of claim 132, wherein the binder comprises a modified cellulose.



150. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 149, wherein the modified cellulose comprises a cellulose ester.

151. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 149, wherein the modified cellulose comprises a nitrocellulose.

152. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 149, wherein the ~~coating paint further~~ comprises an amino binder, an acrylic binder, urethane binder, or a combination thereof.

153. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 132, wherein the binder comprises a polyamide.

154. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 153, wherein the ~~coating paint further~~ comprises an epoxide.

155. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 132, wherein the binder comprises an amino resin.

156. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 155, wherein the ~~coating paint further~~ comprises an acrylic binder, an alkyd resin, a polyester binder, or a combination thereof.

157. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 132, wherein the binder comprises an urethane binder.

158. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 157, wherein the ~~coating paint further~~ comprises a polyol, an amine, an epoxide, a silicone, a vinyl, a phenolic, a triacrylate, or a combination thereof.

159. (Withdrawn - Currently Amended) The coating paint of claim 132, wherein the binder comprises a phenolic resin.

160. (Withdrawn - Currently Amended) The coating paint of claim 159, wherein the coating paint further comprises an alkyd resin, an amino resin, a blown oil, an epoxy resin, a polyamide, a polyvinyl resin, or a combination thereof.

161. (Withdrawn - Currently Amended) The coating paint of claim 132, wherein the binder comprises an epoxy resin.

162. (Withdrawn - Currently Amended) The coating paint of claim 161, wherein the coating paint further comprises an amino resin a phenolic resin, a polyamide, a ketimine, an aliphatic amine, or a combination thereof.

163. (Withdrawn - Currently Amended) The coating paint of claim 161, wherein the epoxy resin comprises a cycloaliphatic epoxy binder.

164. (Withdrawn - Currently Amended) The coating paint of claim 163, wherein the coating paint further comprises a polyol.

165. (Withdrawn - Currently Amended) The coating paint of claim 132, wherein the binder comprises a polyhydroxyether binder.

166. (Withdrawn - Currently Amended) The coating paint of claim 165, wherein the coating paint further comprises an epoxide, a polyurethane comprising an isocyanate moiety, an amino resin, or a combination thereof.

167. (Withdrawn - Currently Amended) The coating paint of claim 132, wherein the binder comprises an acrylic resin.

168. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 167, wherein the ~~coating paint further~~ comprises an epoxide, a polyurethane comprising an isocyanate moiety, an amino resin, or a combination thereof.

169. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 132, wherein the binder comprises a polyvinyl binder.

170. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 169, wherein the ~~coating paint further~~ comprises an alkyd, an urethane, an amino-resin, or a combination thereof.

171. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 132, wherein the binder comprises a rubber resin.

172. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 171, wherein the rubber resin comprises a chlorinated rubber resin, a synthetic rubber resin, or a combination thereof.

173. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 171, wherein the ~~coating paint further~~ comprises an acrylic resin, an alkyd resin, a bituminous resin, or a combination thereof.

174. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 132, wherein the binder comprises a bituminous binder.

175. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 174, wherein the ~~coating paint further~~ comprises an epoxy resin.

176. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 132, wherein the binder comprises a polysulfide binder.

177. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 176, wherein the ~~coating paint further~~ comprises a peroxide, a binder comprising an isocyanate moiety, or a combination thereof.

178. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 132, wherein the binder comprises a silicone binder.

179. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 178, wherein the ~~coating paint further~~ comprises an organic binder.

180. (Currently Amended) The ~~coating paint~~ of claim 1, wherein the ~~coating paint~~ comprises a liquid component.

181. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 180, wherein the liquid component comprises a solvent, a thinner, a diluent, a plasticizer, or a combination thereof.

182. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 180, wherein the liquid component comprises a liquid organic compound, an inorganic compound, water, or a combination thereof.

183. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 180, wherein the liquid component comprises a liquid organic compound.

184. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 183, wherein the liquid organic compound comprises a hydrocarbon, an oxygenated compound, a chlorinated hydrocarbon, a nitrated hydrocarbon, a miscellaneous organic liquid component, a plasticizer, or a combination thereof.

185. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~184~~ 183, wherein the liquid organic compound comprises a hydrocarbon.

186. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 185, wherein the hydrocarbon comprises an aliphatic hydrocarbon, a cycloaliphatic hydrocarbon, a terpene, an aromatic hydrocarbon, or a combination thereof.

187. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~186~~ 185, wherein the hydrocarbon comprises an aliphatic hydrocarbon.

188. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 187, wherein the aliphatic hydrocarbon comprises a petroleum ether, pentane, hexane, heptane, isododecane, a kerosene, a mineral spirit, a VMP naphthas, or a combination thereof.

189. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~186~~ 185, wherein the hydrocarbon comprises a cycloaliphatic hydrocarbon.

190. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 189, wherein the cycloaliphatic hydrocarbon comprises cyclohexane, methylcyclohexane, ethylcyclohexane, tetrahydronaphthalene, decahydronaphthalene, or a combination thereof.

191. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~186~~ 185, wherein the hydrocarbon comprises a terpene.

192. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 191, wherein the terpene comprises wood terpentine oil, pine oil,  $\alpha$ -pinene,  $\beta$ -pinene, dipentene, D-limonene, or a combination thereof.

193. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~186~~ 185, wherein the hydrocarbon comprises an aromatic hydrocarbon.

194. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 193, wherein the aromatic hydrocarbon comprises benzene, toluene, ethylbenzene, xylene, cumene, a type I high flash aromatic naphthas, a type II high flash aromatic naphthas, mesitylene, pseudocumene, cymol, styrene, or a combination thereof.

195. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~184~~ 183, wherein the liquid organic compound comprises an ~~oxygenated~~ oxygenated compound.

196. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 195, wherein the ~~oxygenated~~ oxygenated compound comprises an alcohol, an ester, a glycol ether, a ketone, an ether, or a combination thereof.

197. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~196~~ 195, wherein the ~~oxygenated~~ oxygenated compound comprises an alcohol.

198. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 197, wherein the alcohol comprises methanol, ethanol, propanol, isopropanol, 1-butanol, isobutanol, 2-butanol, tert-butanol, amyl alcohol, isoamyl alcohol, hexanol, methylisobutylcarbinol, 2-ethylbutanol, isooctyl alcohol, 2-ethylhexanol, isodecanol, cyclohexanol, methylcyclohexanol, trimethylcyclohexanol, benzyl alcohol, methylbenzyl alcohol, furfuryl alcohol, tetrahydrofurfuryl alcohol, diacetone alcohol, trimethylcyclohexanol, or a combination thereof.

199. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~196~~ 195, wherein the ~~oxygenated~~ oxygenated compound comprises an ester.

200. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 199, wherein the ester comprises methyl formate, ethyl formate, butyl formate, isobutyl formate, methyl acetate, ethyl acetate, propyl acetate, isopropyl acetate, butyl acetate, isobutyl acetate, *sec*-butyl acetate, amyl acetate, isoamyl acetate, hexyl acetate, cyclohexyl acetate, benzyl acetate, methyl glycol acetate, ethyl glycol acetate, butyl glycol acetate, ethyl diglycol acetate, butyl diglycol acetate, 1-methoxypropyl acetate, ethoxypropyl acetate, 3-methoxybutyl acetate, ethyl 3-ethoxypropionate,

isobutyl isobutyrate, ethyl lactate, butyl lactate, butyl glycolate, dimethyl adipate, glutarate, succinate, ethylene carbonate, propylene carbonate, butyrolactone, or a combination thereof.

201. (Withdrawn - Currently Amended) The coating paint of claim ~~196~~ 195, wherein the exigenated oxygenated compound comprises a glycol ether.

202. (Withdrawn - Currently Amended) The coating paint of claim 201, wherein the glycol ether comprises methyl glycol, ethyl glycol, propyl glycol, isopropyl glycol, butyl glycol, methyl diglycol, ethyl diglycol, butyl diglycol, ethyl triglycol, butyl triglycol, diethylene glycol dimethyl ether, methoxypropanol, isobutoxypropanol, isobutyl glycol, propylene glycol monoethyl ether, 1-isopropoxy-2-propanol, propylene glycol mono-n-propyl ether, propylene glycol n-butyl ether, methyl dipropylene glycol, methoxybutanol, or a combination thereof.

203. (Withdrawn - Currently Amended) The coating paint of claim ~~196~~ 195, wherein the exigenated oxygenated compound comprises a ketone.

204. (Withdrawn - Currently Amended) The coating paint of claim 203, wherein the ketone comprises acetone, methyl ethyl ketone, methyl propyl ketone, methyl isopropyl ketone, methyl butyl ketone, methyl isobutyl ketone, methyl amyl ketone, methyl isoamyl ketone, diethyl ketone, ethyl amyl ketone, dipropyl ketone, diisopropyl ketone, cyclohexanone, methylcyclohexanone, trimethylcyclohexanone, mesityl oxide, diisobutyl ketone, isophorone, or a combination thereof.

205. (Withdrawn - Currently Amended) The coating paint of claim ~~196~~ 195, wherein the exigenated oxygenated compound comprises an ether.

206. (Withdrawn - Currently Amended) The coating paint of claim 205, wherein the ether comprises diethyl ether, diisopropyl ether, dibutyl ether, di-sec-butyl ether, methyl tert-butyl ether, tetrahydrofuran, 1,4-dioxane, metadioxane, or a combination thereof.

207. (Withdrawn - Currently Amended) The coating paint of claim ~~184~~ 183, wherein the liquid organic compound comprises a chlorinated hydrocarbon.
208. (Withdrawn - Currently Amended) The coating paint of claim 207, wherein the chlorinated hydrocarbon comprises methylene chloride, trichloromethane, tetrachloromethane, ethyl chloride, isopropyl chloride, 1,2-dichloroethane, 1,1,1-trichloroethane, trichloroethylene, 1,1,2,2-tetrachloroethane, ~~tetrachloroethane~~, 1,2-dichloroethylene, perchloroethylene, 1,2-dichloropropane, chlorobenzene, or a combination thereof.
209. (Withdrawn - Currently Amended) The coating paint of claim ~~184~~ 183, wherein the liquid organic compound comprises a nitrated hydrocarbon.
210. (Withdrawn - Currently Amended) The coating paint of claim 209, wherein the nitrated hydrocarbon comprises a nitroparaffin, N-methyl-2-pyrrolidone, or a combination thereof.
211. (Withdrawn - Currently Amended) The coating paint of claim ~~184~~ 183, wherein the liquid organic compound comprises a miscellaneous organic liquid.
212. (Withdrawn - Currently Amended) The coating paint of claim 209, wherein the miscellaneous organic liquid comprises carbon dioxide; acetic acid, methylal, dimethylacetal, *N,N*-dimethylformamide, *N,N*-dimethylacetamide, dimethylsulfoxide, tetramethylene sulfone, carbon disulfide, 2-nitropropane, N-methylpyrrolidone, hexamethylphosphoric triamide, 1,3-dimethyl-2-imidazolidinone, or a combination thereof.
213. (Withdrawn - Currently Amended) The coating paint of claim ~~184~~ 183, wherein the liquid organic compound comprises a plasticizer.
214. (Withdrawn - Currently Amended) The coating paint of claim 213, wherein the plasticizer comprises an adipate, an azelate, a citrate, a chlorinated plasticizer, an epoxide, a phosphate, a sebacate, a phthalate, a polycarbonate, a trimellitate, or a combination thereof.



215. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 180, wherein the liquid component comprises an inorganic compound.

216. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 215, wherein the inorganic compound comprises ammonia, hydrogen cyanide, hydrogen fluoride, hydrogen cyanide, sulfur dioxide, or a combination thereof.

217. (Currently Amended) The ~~coating paint~~ of claim 180, wherein the liquid component comprises water.

218. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 217, wherein the liquid component further comprises methanol, ethanol, propanol, isopropyl alcohol, tert-butanol, ethylene glycol, methyl glycol, ethyl glycol, propyl glycol, butyl glycol, ethyl diglycol, methoxypropanol, methyldipropylene glycol, dioxane, tetrahydrofuran, acetone, diacetone alcohol, dimethylformamide, dimethyl sulfoxide, ethylbenzene, tetrachloroethylene, *p*-xylene, toluene, diisobutyl ketone, trichloroethylene, trimethylcyclohexanol, cyclohexyl acetate, dibutyl ether, trimethylcyclohexanone, 1,1,1-trichloroethane, hexane, hexanol, isobutyl acetate, butyl acetate, isophorone, nitropropane, butyl glycol acetate, 2-nitropropane, methylene chloride, methyl isobutyl ketone, cyclohexanone, isopropyl acetate, methylbenzyl alcohol, cyclohexanol, nitroethane, methyl tert-butyl ether, ethyl acetate, diethyl ether, butanol, butyl glycolate, isobutanol, 2-butanol, propylene carbonate, ethyl glycol acetate, methyl acetate, methyl ethyl ketone, or a combination thereof.

219. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 87, wherein the ~~coating paint~~ further comprises a colorant.

220. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 219, wherein the colorant comprises a pigment, a dye, or a combination thereof.

221. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~220~~ 219, wherein the colorant comprises a pigment.

222. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 221, wherein the ~~biomolecule composition~~ proteinaceous material comprises 0.001% to 100% of the pigment.

223. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~222~~ 221, wherein the pigment volume concentration of the ~~coating paint~~ is approximately 20% to approximately 60%.

224. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 221, wherein the pigment comprises a corrosion resistance pigment, a camouflage pigment, a color property pigment, an extender pigment, or a combination thereof.

225. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~224~~ 221, wherein the pigment comprises a corrosion resistance pigment.

226. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 225, wherein the corrosion resistance pigment comprises aluminum flake, aluminum triphosphate, aluminum zinc phosphate, ammonium chromate, barium borosilicate, barium chromate, barium metaborate, basic calcium zinc molybdate, basic carbonate white lead, basic lead silicate, basic lead silicochromate, basic lead silicosulfate, basic zinc molybdate, basic zinc molybdatephosphate, basic zinc molybdenum phosphate, basic zinc phosphate hydrate, bronze flake, calcium barium phosphosilicate, calcium borosilicate, calcium chromate, calcium plumbate, calcium strontium phosphosilicate, calcium strontium zinc phosphosilicate, dibasic lead phosphite, lead chromosilicate, lead cyanamide, lead suboxide, lead sulfate, mica, micaceous iron oxide, red lead, steel flake, strontium borosilicate, strontium chromate, tribasic lead phosphosilicate, zinc borate, zinc borosilicate, zinc chromate, zinc dust, zinc hydroxy phosphite, zinc molybdate, zinc oxide, zinc phosphate, zinc potassium chromate, zinc silicophosphate hydrate, zinc tetraoxylchromate, or a combination thereof.

227. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 225, wherein the ~~coating paint~~ is a metal surface ~~coating paint~~.

228. (Withdrawn - Currently Amended) The coating paint of claim 225, wherein the coating paint is a primer.

229. (Withdrawn - Currently Amended) The coating paint of claim ~~224~~ 221, wherein the pigment comprises a camouflage pigment.

230. (Withdrawn - Currently Amended) The coating paint of claim 229, wherein the camouflage pigment comprises an anthraquinone black, a chromium oxide green, or a combination thereof.

231. (Withdrawn - Currently Amended) The coating paint of claim ~~224~~ 221, wherein the pigment comprises a color property pigment.

232. (Withdrawn - Currently Amended) The coating paint of claim 231, wherein the color property pigment comprises a black pigment, a brown pigment, a white pigment, a pearlescent pigment, a violet pigment, a blue pigment, a green pigment, a yellow pigment, an orange pigment, a red pigment, a metallic pigment, or a combination thereof.

233. (Withdrawn - Currently Amended) The coating paint of claim 232, wherein the color property pigment comprises aniline black; anthraquinone black; carbon black; copper carbonate; graphite; iron oxide; micaceous iron oxide; manganese dioxide $[[\tau]]_n$ ; azo condensation; benzimidazolone $[[\tau]]_n$ ; iron oxide; metal complex brown; antimony oxide; basic lead carbonate; lithopone; titanium dioxide; white lead; zinc oxide; zinc sulphide; titanium dioxide and ferric oxide covered mica $[[\tau]]_n$ ; bismuth oxychloride crystal $[[\tau]]_n$ ; dioxanine violet $[[\tau]]_n$ ; carbazol Blue; carbazole Blue; cobalt blue; copper phthalocyanine; dioxanine Blue; indanthrone; phthalocyanin blue; Prussian blue; ultramarine; chrome green; chromium oxide green; halogenated copper phthalocyanine; hydrated chromium oxide; phthalocyanine green; anthrapyrimidine; arylamide yellow; barium chromate; benzimidazolone yellow; bismuth vanadate; cadmium sulfide yellow; complex inorganic color pigment; diarylide yellow; disazo condensation; flavanthrone; isoindoline; isoindolinone; lead chromate; nickel azo yellow; organic metal complex; quinophthalone; yellow iron oxide; yellow oxide; zinc chromate; perinone orange; pyrazolone orange; anthraquinone; benzimidazolone; RON arylamide; cadmium red; cadmium selenide;

chrome red; dibromanthrone; diketopyrrolo-pyrrole pigment; disazo condensation pigment; lead molybdate; perylene; pyranthrone; quinacridone; quinophthalone; red iron oxide; red lead; toluidine red; tonor pigment;  $\beta$ -naphthol red; aluminum flake; aluminum non-leafing, gold bronze flake, zinc dust, stainless steel flake, nickel flake, nickel powder, or a combination thereof.

234. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~224~~ 221, wherein the pigment comprises an extender pigment.

235. (Currently amended) The ~~coating paint~~ of claim 234, wherein the extender pigment comprises a barium sulphate, a calcium carbonate, a kaolin, a calcium sulphate, a silicate, a silica, an alumina trihydrate; or a combination thereof.

236. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~87~~ 1, wherein the ~~coating paint further~~ comprises an additive.

237. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 236, wherein the additive comprises approximately 0.001% to approximately 20.0% by weight, of the ~~coating paint~~.

238. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 236, wherein said additive comprises an accelerator, an adhesion promoter, an antifoamer, anti-insect additive, an antioxidant, an antiskinning agent, a buffer, a catalyst, a coalescing agent, a corrosion inhibitor, a defoamer, a dehydrator, a dispersant, a drier, electrical additive, an emulsifier, a filler, a flame/fire retardant, a flattening agent, a flow control agent, a gloss aid, a leveling agent, a marproofing agent, a preservative, a silicone additive, a slip agent, a surfactant, a light stabilizer, a rheological control agent, a wetting additive, or a combination thereof.

239. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 236, wherein the additive comprises a preservative.

240. (Withdrawn - Currently Amended) The coating paint of claim 239, wherein the preservative comprises an in-can preservative, an in-film preservative, or a combination thereof.

241. (Withdrawn - Currently Amended) The coating paint of claim 239, wherein the preservative comprises a biocide.

242. (Withdrawn - Currently Amended) The coating paint of claim 241, wherein the biocide comprises a bactericide, a fungicide, an algacide, or a combination thereof.

243. (Withdrawn - Currently Amended) The coating paint of claim 236, wherein the additive comprises a wetting additive, a dispersant, or a combination thereof.

244. (Withdrawn - Currently Amended) The coating paint of claim 236, wherein the additive comprises an anti-foamer, a defoamer, or a combination thereof.

245. (Withdrawn - Currently Amended) The coating paint of claim ~~238~~ 236, wherein the additive comprises a rheological control agent.

246. (Withdrawn - Currently Amended) The coating paint of claim 245, wherein the rheological control agent comprises a thickener, a viscosifier, or a combination thereof.

247. (Withdrawn - Currently Amended) The coating paint of claim ~~238~~ 236, wherein the additive comprises a corrosion inhibitor.

248. (Withdrawn - Currently Amended) The coating paint of claim 247, wherein said corrosion inhibitor comprises an in-can corrosion inhibitor, a flash corrosion inhibitor, or a combination thereof.

249. (Withdrawn - Currently Amended) The coating paint of claim ~~238~~ 236, wherein the additive comprises a light stabilizer.

250. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 249, wherein the light stabilizer comprises a UV absorber, a radical scavenger, or a combination thereof.

251. (Currently Amended) The ~~coating paint~~ of claim 1, wherein the ~~coating paint~~ is a multi-pack ~~coating paint~~.

252. (Currently Amended) The ~~coating paint~~ of claim 251, wherein the ~~coating paint~~ is stored in a two to five containers prior to application to the ~~a~~ surface.

253. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 251, wherein 0.001% to 100% of the ~~biomolecular composition~~ proteinaceous material is stored in a container of ~~a the~~ multi-pack ~~coating paint~~, and at least one additional ~~coating paint~~ component is stored in another container of ~~a the~~ multi-pack ~~coating paint~~.

254. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 253, wherein the container comprising the ~~biomolecular composition~~ proteinaceous material further comprises an additional ~~coating paint~~ component.

255. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim 254, wherein the additional ~~coating paint~~ component comprises a preservative, a wetting agent, a dispersing agent, a buffer, a liquid component, a rheological modifier, or a combination thereof.

256. (Withdrawn - Currently Amended) The ~~coating paint~~ of claim ~~255~~ 254, wherein the additional ~~coating paint~~ component comprises glycerol.

257. - 271. (Canceled)

272. (Withdrawn) A coating comprising a biomolecule composition, wherein the biomolecule composition comprises a phosphoric triester hydrolase.

273. - 308. (Canceled)

309. (Withdrawn – Currently Amended) ~~An two-pack oil-based~~ A multi-pack paint, wherein one container comprises 100 parts by volume paint, wherein a second container comprises three parts by volume of a biomolecular composition comprising a whole cell particulate material, wherein the whole cell particulate material comprises an organophosphorus hydrolase, and wherein each part of the biomolecular composition comprises 1 mg of whole cell particulate material and 50% glycerol.

310. - 312. (Canceled)

313. (Withdrawn - Currently Amended) An elastomer comprising a ~~biomolecule composition~~, wherein the ~~biomolecule composition~~ comprises an active biomolecule proteinaceous material which is configured to bind to a chemical that is toxic to humans.

314. (Withdrawn - Currently Amended) A filler comprising a ~~biomolecule composition~~, wherein the ~~biomolecule composition~~ comprises an active biomolecule proteinaceous material which is configured to bind to a chemical that is toxic to humans.

315. (Withdrawn - Currently Amended) An adhesive comprising a ~~biomolecule composition~~, wherein the ~~biomolecule composition~~ comprises an active biomolecule proteinaceous material which is configured to bind to a chemical that is toxic to humans.

316. (Withdrawn - Currently Amended) A sealant comprising a ~~biomolecule composition~~, wherein the ~~biomolecule composition~~ comprises an active biomolecule proteinaceous material which is configured to bind to a chemical that is toxic to humans.

317. (Withdrawn - Currently Amended) A material applied to a textile, comprising a biomolecule composition, wherein the ~~biomolecule composition~~ comprises an active biomolecule proteinaceous material which is configured to bind to a chemical that is toxic to humans.

318. (Withdrawn - Currently Amended) A wax comprising a ~~biomolecule composition, wherein the biomolecule composition comprises an active biomolecule~~ proteinaceous material which is configured to bind to a chemical that is toxic to humans.

319. (Currently Amended) A surface treatment comprising a ~~biomolecule composition, wherein the biomolecule composition comprises an active biomolecule~~ proteinaceous material which is configured to bind to a chemical that is toxic to humans and is further configured to exhibit said binding activity in the surface treatment at one or more instances after the surface treatment has been formed with the proteinaceous material for greater than approximately 1 week.

320. (Withdrawn - Currently Amended) A ~~The~~ surface treatment of ~~Claim-claim~~ 319, wherein the surface treatment is ~~a coating, a paint, a non-film forming coating, an elastomer, an adhesive, an a sealant, a material applied to a textile, or a wax.~~

321. (Withdrawn - Currently Amended) The surface treatment of ~~Claim-claim~~ 320, wherein the surface treatment comprises a pH indicator.

322. (Withdrawn – Currently Amended) The ~~coating-paint~~ of claim 45, wherein the organophosphorus acid anhydrolase comprises an *Acinetobacter calcoaceticus* ATCC 19606 OPAA, an *Aeromonas hydrophila* ATCC 7966 OPAA, an *Aeromonas proteolytica* OPAA, an *Arm. A* isolate 1 OPAA, an *Arm. A* isolate 2 OPAA, a *Bacillus subtilis* (fr. Zuberer) OPAA, a *Bacillus subtilis* OPAA, a ATCC 18685 OPAA, a *Bacillus subtilis* BRB41 OPAA, a *Bacillus subtilis* Q OPAA, a *Bacillus thuringensis* (fr. Zuberer) OPAA, a *Burkholderia cepacia* LB400 OPAA, a *Burkholderia cepacia* T OPAA, a *Citrobacter diversus* OPAA, a *Citrobacter freundii* ATCC 8090 OPAA, an *Edwardsiella tarda* ATCC 15947 OPAA, an *Enterobacter aerogenes* ATCC 13048 OPAA, an *Enterobacter cloacae* 96-3 OPAA, an *Enterobacter liquefaciens* 363 OPAA, an *Enterobacter liquefaciens* 670 OPAA, an *Erwinia carotovora* EC189-67 OPAA, an *Erwinia herbicola* OPAA, an *Erwinia herbicola* (agglomerans) OPAA, an *Escherichia coli* E63 OPAA, a *Hafnia alvei* ATCC 13337 OPAA, a *Klebsiella pneumoniae* ATCC 13883 OPAA, a *Lactobacillus casei* 686 OPAA, a *Lactococcus lactis* subsp. *lactis* pIL253 OPAA, a *Proteus morganii* OPAA, a *Proteus vulgaris* ATCC 13315 OPAA, a *Pseudomonas aeruginosa* ATCC



10145 OPAA, a *Pseudomonas aeruginosa* ATCC 27853 OPAA, a *Pseudomonas fluorescens* OPAA, a *Pseudomonas putida* ATCC 18633 OPAA, a *Pseudomonas putida* PpY101 OPAA, a *Pseudomonas* sp. P OPAA, a *Salmonella typhimurium* ATCC 14028 OPAA, a *Serratia marcescens* ATCC 8100 OPAA, a *Serratia marcescens* HY OPAA, a *Serratia marcescens* Nima OPAA, a *Shigella flexneri* ATCC 12022 OPAA, a *Shigella sonnei* ATCC 25931 OPAA, a *Staphylococcus aureus* ATCC 25923 OPAA, a *Staphylococcus* sp. S OPAA, a *Streptococcus faecalis* ATCC 19433 OPAA, a *Vibrio parahaemolyticus* TAMU 109 OPAA, a *Yersinia enterocolitica* ATCC 9610 OPAA, a *Yersinia enterocolitica* TAMU 84 OPAA, a *Yersinia frederiksenii* TAMU 91 OPAA, a *Yersinia intermedia* ATCC 29909 OPAA, a *Yersinia intermedii* TAMU 86 OPAA, a *Yersinia kristensenia* ATCC 33640 OPAA, a *Yersinia kristensenia* TAMU 95 OPAA, a *Yersinia* sp. ATCC 29912 OPAA, a *Vibrio proteolyticus* ATCC 15338 OPAA, a *Thermus* sp. ATCC 31674 OPAA, a *Streptomyces cinnamonensis* subsp. *Proteolyticus* ATCC 19893 OPAA, a *Deinococcus proteolyticus* ATCC 35074 OPAA, a *Clostridium proteolyticum* ATCC 49002 OPAA, an *Aeromonas jandaei* ATCC 49568 OPAA, an *Aeromonas veronii* biogroup *sobria* ATCC 9071 OPAA, a *Pseudoalteromonas haloplanktis* ATCC 23821 OPAA, a *Xanthomonas campestris* ATCC 33913 OPAA, a *Pseudoalteromonas espejiana* ATCC 27025 OPAA, a *Shewanella putrefaciens* ATCC 8071 OPAA, a *Stenotrophomonas maltophilus* ATCC 13637 OPAA, an *Ochrobactrum anthropi* ATCC 19286 OPAA, a *Desulfovibrio vulgaris* OPAA, or a combination thereof.

323. (Currently Amended) The ~~coating~~ paint of claim 73, wherein the biocarbonate comprises an ammonium bicarbonate.

324. (Currently Amended) The ~~coating~~ paint of claim 72, wherein the buffer comprises a monobasic phosphate buffer, a dibasic phosphate buffer, Trizma base, a 5 zwitterionic buffer, triethanolamine, or a combination thereof.

325. (Withdrawn – Currently Amended) The ~~coating~~ paint of claim 213, wherein the plasticizer comprises di(2-ethylhexyl) azelate; di(butyl) sebacate; di(2-ethylhexyl) phthalate; di(isononyl) phthalate; dibutyl phthalate; butyl benzyl phthalate; di(isooctyl) phthalate; di(idodecyl) phthalate; tris(2-ethylhexyl) trimellitate; tris(isononyl) trimellitate; di(2-ethylhexyl) adipate;

di(isononyl) adipate; acetyl tri-n-butyl citrate; an epoxy modified soybean oil; 2-ethylhexyl epoxytallate; isodecyl diphenyl phosphate; tricresyl phosphate; isodecyl diphenyl phosphate; tri-2-ethylhexyl phosphate; an adipic acid polyester; an azelaic acid polyester; or a bisphenoxyethylformal.

326. (Withdrawn – Currently Amended) The ~~coating~~ paint of claim 221, wherein the pigment comprises barium ferrite; borosilicate; burnt sienna; burnt umber; calcium ferrite; cerium; chrome orange; chrome yellow; chromium phosphate; cobalt-containing iron oxide; fast chrome green; gold bronze powder; luminescent; magnetic; molybdate orange; molybdate red; oxazine; oxysulfide; polycyclic; raw sienna; surface modified pigment; thiazine; thioindigo; transparent cobalt blue; transparent cobalt green; transparent iron blue; transparent zinc oxide; triarylcarbonium; zinc cyanamide; or zinc ferrite.

327. (Withdrawn – Currently Amended) The ~~coating~~ paint of claim 229, wherein the camouflage pigment reduces the ability of the coating to be detected by a ~~device~~ device that measures infrared radiation.

328. (Withdrawn – Currently Amended) The ~~coating~~ paint of claim 239, wherein the preservative comprises 1-(3-chloroallyl)-3,5,7-triaza-1-azoniaadamantane chloride; 1,2-benzisothiazoline-3-one; 1,2-dibromo-2,4-dicyanobutane; 1,3-bis(hydroxymethyl)-5,5-dimethylhydantoin; 1-methyl-3,5,7-triaza-1-azoniaadamantane chloride; 2-(4-thiazolyl)benzimidazole; 2-(hydroxymethyl)-amino-2-methyl-1-propanol; 2(hydroxymethyl)-aminoethanol; 2,2-dibromo-3-nitrilopropionamide; 2,4,5,6-tetrachloro-isophthalonitrile; 2-mercaptobenzo-thiazole; 2-methyl-4-isothiazolin-3-one; 2-n-octyl-4-isothiazoline-3-one; 3-iodo-2-propynyl N-butyl carbamate; 4,4-dimethyloxazolidine; 5-chloro-2-methyl-4-isothiazolin-3-one; 5-hydroxy-methyl-1-aza-3,7-dioxabicyclo (3.3.0.) octane; 6-acetoxy-2,4-dimethyl-1,3-dioxane; 7-ethyl bicyclooxazolidine; a combination of 2-(thiocyanomethyl-thio)benzothiozole and methylene bis(thiocyanate); a combination of 4-(2-nitrobutyl)-morpholine and 4,4'-(2-ethylnitrotrimethylene) dimorpholine; a combination of 4,4-dimethyl-oxazolidine and 3,4,4-trimethyloxazolidine; a combination of 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one; a combination of chlorothalonil and 3-iodo-2-propynyl N-butyl carbamate; a

combination of chlorothalonil and a triazine compound; a combination of tributyltin benzoate and alkylamine hydrochlorides; a combination of zinc-dimethyldithiocarbamate and zinc 2-mercaptobenzothiazole; a copper soap; a metal soap, a mercury soap; a mixture of bicyclic oxazolidines; a tin soap; an alkylamine hydrochloride; an amine reaction product; barium metaborate; butyl parahydroxybenzoate; copper(II) 8-quinolinolate; diiodomethyl-p-tolysulfone; ethyl parahydroxybenzoate; glutaraldehyde; hexahydro-1,3,5-triethyl-s-triazine; hydroxymethyl-5,5-dimethylhydantoin; methyl parahydroxybenzoate; N-(trichloromethylthio) phthalimide; N-cyclopropyl-N-(1-dimethylethyl)-6-(methylthio)-1,3,5-triazine-2,4-diamine; N-trichloromethylthio-4-cyclohexene-1,2-dicarboximide; p-chloro-m-cresol; phenylmercuric acetate; potassium dimethyldithiocarbamate; potassium N-hydroxy-methyl-N-methyl-dithiocarbamate; propyl parahydroxybenzoate; sodium 2-pyridinethiol-1-oxide; tetra-hydro-3,5-di-methyl-2H-1,3,5-thiadiazine-2-thione; tributyltin benzoate; tributyltin oxide; tributyltin salicylate; zinc 2-pyridinethiol-N-oxide; zinc oxide; or a zinc soap.

329. (Withdrawn – Currently Amended): The ~~coating~~ paint of claim ~~243~~ 236, wherein the additive comprises a combination of an unsaturated polyamine amide salt and a lower molecular weight acid; a polycarboxylic acid polymer alkylolammonium salt; a combination of a long chain polyamine amide salt and a polar acidic ester; a hydroxyfunctional carboxylic acid ester; or a non-ionic wetting agent.

330. (Withdrawn – Currently Amended): The ~~coating~~ paint of claim ~~243~~ 236, wherein the additive comprises a wetting additive.

331. (Withdrawn – Currently Amended) The ~~coating~~ paint of claim 330, wherein the wetting additive comprises an ethylene oxide molecule comprising a hydrophobic moiety; a surfactant; pine oil; a metal soap; calcium octoate; zinc octoate; aluminum stearate; zinc stearate; bis(2-ethylhexyl)sulfosuccinate; (octylphenoxy)polyethoxyethanol octylphenyl-polyethylene glycol; nonyl phenoxy poly (ethylene oxy) ethanol; or ethylene glycol octyl phenyl ether.

332. (Withdrawn – Currently Amended) The ~~coating~~ paint of claim ~~243~~ 236, wherein the additive comprises a dispersant.

333. (Withdrawn – Currently Amended) The ~~coating paint~~ of claim 332, wherein the dispersant comprises tetra-potassium pyrophosphate, a phosphate ester surfactant~~[[ $\pm$ ]]~~, a particulate material, a calcium carbonate coated with fatty acid, a modified montmorillonite clay, or a caster wax.

334. (Withdrawn – Currently Amended) The ~~coating paint~~ of claim ~~244~~36, wherein the additive comprises an oil; a mineral oil; a silicon oil; a fatty acid ester; dibutyl phosphate; a metallic soap; a siloxane; a wax; an alcohol comprising six to ten carbons; or a pine oil.

335. (Withdrawn – Currently Amended): The ~~coating paint~~ of claim 244, wherein the coating further comprises an emulsifier, a hydrophobic silica, or a combination thereof.

336. (Withdrawn – Currently Amended) The ~~composition paint~~ of claim 245, wherein the rheology control agent comprises a silicate~~;~~ a montmorillonite silicate~~;~~ aluminum silicate, a bentonite, magnesium silicate, a cellulose ether, a hydrogenated oil, a polyacrylate, a polyvinylpyrrolidone, a urethane, a methyl cellulose, a hydroxyethyl cellulose, hydrogenated castor oil~~;~~ a hydrophobically modified ethylene oxide urethane~~;~~ a titanium chelate, or a zirconium chelate.

337. (Withdrawn – Currently Amended): The ~~coating paint~~ of claim 247, wherein the corrosion inhibitor comprises a chromate, a phosphate, a molybdate, a wollastonite, a calcium ion-exchanged silica gel, a zinc compound, a borosilicate, a phosphosilicate, a hydrotalcite, or a combination thereof.

338. (Withdrawn – Currently Amended) The ~~coating paint~~ of claim 248, wherein the corrosion inhibitor comprises sodium nitrate, sodium benzoate, ammonium benzoate, or 2-amino-2-methyl-propan-1-ol.

339. (Withdrawn – Currently Amended) The ~~coating paint~~ of claim ~~250~~ 249, wherein the light stabilizer comprises a UV absorber.

340. (Withdrawn – Currently Amended) The ~~coating paint~~ of claim 339, wherein the UV absorber comprises a hydroxybenzophenone, a hydroxyphenylbenzotriazole, a hydroxyphenyl-S-triazine, an oxalic anilide, yellow iron oxide, or a combination thereof.
341. (Withdrawn – Currently Amended) The ~~coating paint~~ of claim ~~250~~ 249, wherein the light stabilizer comprises a radical scavenger.
342. (Withdrawn – Currently Amended) The ~~coating paint~~ of claim 341, wherein the radical scavenger comprises a sterically hindered amine; bis(1,2,2,6,6,-pentamethyl-4-piperidinyl) ester, or bis(2,2,6,6-tetramethyl-1-isooctyloxy-4-piperidinyl) ester.
343. (Currently Amended) The ~~coating paint~~ of claim 1, wherein the coating is a coating capable of being applied to a surface by a spray applicator.
344. (Currently Amended) The ~~coating paint~~ of claim 1, wherein the biomolecule composition is microencapsulated.
345. (Withdrawn – Currently Amended) The ~~coating paint~~ of claim 1, wherein the coating comprises a pH indicator.
346. (Withdrawn – Currently Amended) The ~~coating paint~~ of claim 345, wherein the pH indicator is a colorimetric indicator.
347. (Withdrawn – Currently Amended) The ~~coating paint~~ of claim 346, wherein the colorimetric indicator comprises Alizarin, Alizarin S, Brilliant Yellow, Lacmoid, Neutral Red, Rosolic Red, or a combination thereof.
348. (Withdrawn – Currently Amended) The ~~coating paint~~ of claim 345, wherein the pH indicator is a fluorimetric indicator.

349. (Withdrawn – Currently Amended) The ~~coating~~ paint of claim 348, wherein the fluorimetric indicator comprises SNARF-1, BCECF, HPTS, Fluorescein, or a combination thereof.

350. (Withdrawn – Currently Amended) The ~~coating~~ paint of claim 345, wherein the pH indicator is a pH indicator that undergoes a color or fluorescence change between pH 8 to pH 9.

351. (New) The paint of claim 1, wherein the proteinaceous material is further configured to exhibit said binding activity in the paint at one or more instances during a period of greater than approximately 1 week after the paint has been formed with the proteinaceous material.

352. (New) The paint of claim 1, wherein the proteinaceous material is further configured to exhibit said binding activity in the paint at one or more instances after the paint has been formed with the proteinaceous material for greater than approximately 1 month.

353. (New) The paint of claim 1, wherein the proteinaceous material is further configured to exhibit said binding activity in the paint at one or more instances after the paint has been formed with the proteinaceous material for greater than approximately 1 year.

354. (New) The paint of claim 1, wherein the paint is an opaque coating.

355. (New) The paint of claim 7, where the organophosphorus compound comprises a chemical warfare agent.

356. (New) The paint of claim 7, wherein the organophosphorus compound comprises a pesticide.

357. (Withdrawn - New) The paint of claim 104, wherein the non-film formation binder lacks sufficient size to undergo film formation.

358. (Withdrawn - New) The paint of claim 357, wherein the non-film formation binder comprises a molecular weight between approximately 1 kilodalton and approximately 29 kilodaltons.

359. (Withdrawn - New) The paint of claim 104, wherein the non-film formation binder lacks sufficient crosslinking moiety to undergo film formation.

360. (Withdrawn - New) The surface treatment of claim 319, where the chemical comprises one or more organophosphorus compounds.

361. (Withdrawn - New) The surface treatment of claim 360, where the one or more organophosphorus compounds comprise one or more chemical warfare agents.

362. (Withdrawn - New) The surface treatment of claim 360, wherein the one or more organophosphorus compounds comprise one or more pesticides.

363. (New) The surface treatment of claim 319, wherein the proteinaceous molecule comprises an enzyme.

364. (Withdrawn - New) The surface treatment of claim 363, wherein the enzyme comprises a phosphoric triester hydrolase.

365. (New) The surface treatment of claim 319, wherein the surface treatment is an opaque coating.

366. (Withdrawn - New) The surface treatment of claim 319, wherein the surface treatment is a clear coating.

367. (Withdrawn - New) The surface treatment of claim 319, where the surface treatment is selected from a group consisting of a water-based coating, a solvent-based coating, an oil-based coating, and a latex-based coating.

368. (New) A coating comprising a proteinaceous material which is configured to bind to a chemical that is toxic to humans and is further configured to exhibit said binding activity in the surface treatment at one or more instances after the surface treatment has been formed with the proteinaceous material for greater than approximately 1 week.

369. (New) The coating of claim 368, wherein the proteinaceous material is further configured to exhibit said binding activity in the coating at one or more instances after the coating has been formed with the proteinaceous material for greater than approximately 1 month.

370. (New) The coating of claim 368, wherein the proteinaceous material is further configured to exhibit said binding activity in the coating at one or more instances after the coating has been formed with the proteinaceous material for greater than approximately 1 year.

371. (Withdrawn - New) The coating of claim 368, where the chemical comprises one or more organophosphorus compounds.

372. (Withdrawn - New) The coating of claim 371, where the one or more organophosphorus compounds comprise one or more chemical warfare agents.

373. (Withdrawn - New) The coating of claim 371, wherein the one or more organophosphorus compounds comprise one or more pesticides.

374. (New) The coating of claim 368, wherein the proteinaceous molecule comprises an enzyme.

375. (Withdrawn - New) The coating of claim 374, wherein the enzyme comprises a phosphoric triester hydrolase.

376. (New) The coating of claim 368, wherein the coating is an opaque coating.



377. (Withdrawn - New) The coating of claim 368, wherein the coating is a clear coating.
378. (Withdrawn - New) The coating of claim 368, wherein the coating is selected from a group consisting of a paint, an elastomer, a filler, an adhesive, a sealant, a material applied to a textile, and a wax.
379. (Withdrawn - New) The coating of claim 368, where the coating is selected from a group consisting of a water-based coating, a solvent-based coating, an oil-based coating, and a latex-based coating.
380. (New) The coating of claim 368, wherein the coating is a liquid configured to form a solid film.
381. (New) The coating of claim 368, wherein the coating is a solid film.
382. (New) The coating of claim 381, wherein the coating comprises a thickness between approximately 5  $\mu\text{m}$  to approximately 1500  $\mu\text{m}$ .
383. (New) The coating of claim 381, wherein the coating is a temporary film lasting upon a surface for a time period between approximately 1 second and approximately 6 months.
384. (New) The coating of claim 383, wherein the temporary film is susceptible to wear by exposure to water, exposure to weathering conditions, or a combination thereof.
385. (New) The coating of claim 383, wherein the temporary film is susceptible to wear by a scrubbing action, exposure to a solvent, or a combination thereof.
386. (Withdrawn - New) The coating of claim 368, wherein the coating comprises a non-film forming binder which lacks sufficient size to undergo film formation.

387. (Withdrawn - New) The coating of claim 386, wherein the non-film forming binder comprises a molecular weight between approximately 1 kilodaltons and approximately 29 kilodaltons.

388. (Withdrawn - New) The coating of claim 368, wherein the coating comprises a non-film forming binder which lacks sufficient cross-linking moiety to undergo film formation.

389. (Withdrawn - New) The coating of claim 366, wherein the coating is a self-cleaning film.

390. (Withdrawn - New) The coating of claim 368, wherein the coating further comprises one or more additional materials selected from a group consisting of a filler, a liquid component, a colorant, a plasticizer, a catalyst, and a buffer.

391. (New) The coating of claim 368, wherein the coating comprises a plurality of sublayers, and wherein at least one of the sublayers comprises the proteinaceous material.

392. (Withdrawn - New) The coating of claim 368, wherein the coating is applied to one or more architectural surfaces, one or more industrial surfaces, one or more specification surfaces, or a combination thereof.